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EXAMINER	
PRIETO, B	
ART UNIT	**PAPER NUMBER**
2152	8

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

PTO-90C (Rev. 2/95)
*U.S. GPO: 2000-473-000/44602

1- File Copy

Office Action Summary	Application No.	Applicant(s)	
	09/164,388	CHIN, HON WAH	
	Examiner	Art Unit	
	PRIETO, B.	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 April 2001* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☑ Claim(s) *1-44* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☑ Claim(s) *1-44* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15)☐ Notice of References Cited (PTO-892)
16)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
17)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
18)☐ Interview Summary (PTO-413) Paper No(s). _____ .
19)☐ Notice of Informal Patent Application (PTO-152)
20)☐ Other: .

Detailed Action

1. This communication is in response to request for reconsideration, filed 04/23/01, claims 1-44 remain pending.

2. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous Office Action.

3. Claims 1-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calvignac et. al. (Calvignac) U.S. Patent No. 5,333,269 in view of Kurita et. al. (Kurita) U.S. Patent No. 5,920,568.

Regarding claims 1, 4, 10, 19 and 20, Calvignac teaches substantial features of the invention as claimed; Calvignac teaches method/apparatus for providing an inbound/outbound controller for an interconnecting/routing device, said device having an inbound adapter and an outbound adapter, a memory, and a CPU (abstract, Figs. 1, 8, 17)), the inbound controller being adapted for receiving an inbound packet at the inbound receiving adapter means (col 1/lines 29-37, col 1/lines 60-col 2/line 6 and storing inbound packet at inbound queue), the outbound controller being adapted for forwarding packets at the corresponding outbound transmitting adapter means (col 2/line 10-35, col 3/lines 4-col 4/line 41, col 17/lines 49-52 and storing forward packet at outbound queue), the method comprising: means/apparatus for determining when one of the plurality of inbound queues is ready to be moved to a corresponding outbound queue (col 12/lines 3-col 13/line 28), means/apparatus for receiving an instruction signal to handle an inbound queue, the inbound queue storing a plurality of packets (col 9/lines 7-19, col 12/lines 3-col 13/line 28); and means/apparatus for repeating the steps of receiving, providing, and storing until an instruction signal is asserted and received, initiating the said transfer step (Fig. 19A-B, 20-21); however Calvignac does not explicitly teach where means/apparatus for classifying the inbound packet in a selected one of the plurality of inbound queues according to packet sorting

criteria; transferring one of plurality of inbound queue to one of the plurality of outbound queues corresponding to the packet sorting criteria;

Kurita teaches a system/method related to packet forwarding through manipulating multiple queues of packet, disclosing a method/apparatus for providing an inbound/outbound controller for a router (Fig. 1 (11, 10), Fig. 6, (10), Fig. 7, (31, 38), Fig. 13 (50)), the router having an inbound port (Fig. 7 (31)) and an outbound port (Fig. 7 (38)), a memory, and a CPU (Fig. 7, (33-34)), the inbound controller being adapted for receiving an inbound packet at the inbound port, the outbound controller being adapted for forwarding packets (Fig. 2) at the outbound port, the method comprising: means/apparatus for classifying the inbound packet in a selected one of the plurality of inbound queues according to packet sorting criteria (Kurita: Fig. 1, (11), Fig. 7, (33), col 1/lines 26-39, col 5/lines 44-56); means/apparatus for providing a plurality of inbound queues for the inbound port (Kurita: col 1/lines 35-62, col 5/lines 44-56); and receiving an inbound packet at the inbound port; sorting means coupled to classifier means being capable of storing the inbound packet in the selected one of the plurality of inbound queues a plurality of inbound queues (Fig. 1, (12), Fig. 7, (32)); and transferring the inbound queue to the outbound queue, the inbound queue corresponding to the sorting criteria to the outbound queue (Kurita: col 8/lines 62-67, col 9/line 1-col 10/line 53);

It would have been obvious to one ordinary skilled in the art at the time the invention was made to modify Calvignac's system with means/apparatus for classifying the inbound packet in a selected one of the plurality of inbound queues according to packet sorting criteria; transferring one of plurality of inbound queue to one of the plurality of outbound queues corresponding to the packet sorting criteria, as taught by Kurita, enabling means for repeating the steps of receiving, providing, classifying, and storing until an instruction signal is asserted and received, initiating the said transfer step. Motivation would to provide a scheme suitable for use with routers and contrived to read data elements from a plurality of queues, scheme characterized in that the maximum value of time needed till the data elements are taken from within the queue does not depend on the number of data elements in other queues, where each queue treated impartially and the packets can be communicated without any decline in the throughput property.

Regarding claim 2, the combined teachings of Calvignac and Kurita as discussed above, the method further including: asserting an interrupt when it is determined that one of the plurality of inbound queues is ready to be moved to an outbound queue (Calvignac: col 12/lines 22-37, col 9/lines 7-19, col 12/lines 3-col 13/line 28).

Regarding claim 3, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein classifying the inbound packet includes: selecting inbound packet sorting criteria (Kurita: col 8/lines 62-67); obtaining packet sorting data for the inbound packet, the packet sorting data being associated with the packet sorting criteria; and sorting the inbound packet into one of the plurality of inbound queues according to the packet sorting data (Kurita: col 1/lines 23-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53);

Regarding claim 5, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein storing the inbound packet includes: means/apparatus for obtaining an available packet buffer from a free pool of available packet buffers; placing the inbound packet in the packet buffer; and storing the packet buffer in the inbound queue (Calvignac: col 2/lines 1-19, 29-35, col 5/lines 20-22).

Regarding claim 6, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein determining when one of the plurality of inbound queues is ready to be moved to an outbound queue includes: determining whether a number of packets in one of the plurality of inbound queues exceeds a maximum number of packets (Calvignac: col 6/lines 22-25, col 7/lines 52-65, Fig. 11B, 13A).

Regarding claim 7, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein determining when one of the plurality of inbound queues is ready to be moved to an outbound queue includes: determining whether a number of bytes in one of the plurality of inbound queues exceeds a maximum number of bytes (Calvignac: Fig. 10A).

Regarding claim 8, the combined teachings of Calvignac and Kurita as discussed above, the

method/apparatus wherein determining when one of the plurality of inbound queues is ready to be moved to an outbound queue further includes: determining whether a free pool of available memory has been depleted (Calvignac: Fig. 16, (271), col 8/lines 14-41, determination means: col 15/lines 41-col 16/line 54).

Regarding claim 9, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein determining when one of the plurality of inbound queues is ready to be moved to an outbound queue further includes: determining whether a maximum time limit has been exceeded (Calvignac: col 16/lines 30-36).

Regarding claim 11, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein receiving the instruction signal includes: receiving a notification from the controlling processor to handle the inbound queue (Calvignac: col 9/lines 7-19, col 12/lines 3-col 13/line 28).

Regarding claim 12, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus further including: transmitting packets stored in the outbound queue (Calvignac: Fig. 23, functions performed by logic 506 and 508 for transmitting data packet bursts to the destination).

Regarding claim 13, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein transmitting packets includes: selectively discarding packets stored in the outbound queue (Calvignac: col 7/lines 4-6, releasing means, col 14/lines 33-col 15/line 4).

Regarding claim 14, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein transmitting packets stored in the outbound queue further includes: obtaining a next one of the plurality of inbound queues stored in the outbound queue; transmitting selected packets stored in the next one of the plurality of inbound queues; and releasing memory associated with the next one of the plurality of inbound queues (Calvignac: col 7/lines 4-6, releasing means, col 14/lines 33-col 15/line 4, Fig. 10A-B, (121)).

Regarding claim 15, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein releasing the memory includes: storing the released memory in a free pool of available packet buffers (Calvignac: col 27/lines 36-61).
Regarding claim 16, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein releasing the memory includes: forming a new inbound queue to be used by an inbound controller (Calvignac: col 14/lines 5-19).

Regarding claim 17, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein releasing the memory includes: forming a queue to be used by the outbound controller during bi-directional operation (Calvignac: Fig. 26).

Regarding claim 18, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein transferring the inbound queue to the outbound queue further includes: ascertaining a priority of the inbound queue based on a predetermined criteria; and transferring the inbound queue to the outbound queue according to the said priority of the inbound queue (Kurita: col 8/lines 62-67, col 9/line 1-col 10/line 53).

Regarding claim 21, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus further including: a module adapted for providing the determined one of the plurality of inbound queues (Calvignac: col 1/lines 26-39, col 5/lines 44-56, col 12/lines 22-37, col 9/lines 7-19, col 12/lines 3-col 13/line 28).

Regarding claim 22, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus further including: a module adapted for asserting an interrupt when it is determined that one of the plurality of inbound queues is ready to be moved by the CPU to the outbound queue (Calvignac: col 12/lines 22-37, col 9/lines 7-19, col 12/lines 3-col 13/line 28).

Regarding claim 23-27, this claim comprises the apparatus associated with the method disclosed on claim 5-9, respectively, same rationale is applicable.

Regarding claim 28, this claim comprises the apparatus associated with the method disclosed on claims (1, 4, 10, and 19-20) and 10, same rationale is applicable.

Regarding claim 29-36, this claim comprises the apparatus associated with the method disclosed on claims 11-18, respectively, same rationale is applicable.

Regarding claim 37, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein a router having a plurality of inbound ports and a plurality of outbound, ports, a memory, and a CPU, comprising: an inbound controller coupled to one of the plurality of inbound ports, the inbound controller being adapted for receiving an inbound packet and storing inbound packet at inbound queue; (Calvignac abstract, Figs. 1, 8, 17, col 1/lines 29-37, col 1/lines 60-col 2/line 6 and storing inbound packet at inbound queue); wherein the memory has stored therein: a plurality of inbound queues for the one of the plurality of inbound ports; and a plurality of outbound queues, each one of the plurality of outbound queues corresponding to one of the plurality of outbound ports and being capable of storing a plurality of inbound queues (Calvignac: col 2/line 10-35, col 3/lines 4-col 4/line 41, col 17/lines 49-52, col 12/lines 3-col 13/line 28); a classifier coupled to the inbound controller, the classifier being adapted for classifying the inbound packet in a selected one of the plurality of inbound queues according to packet sorting criteria, the selected one of the plurality of inbound queues being associated with one of the plurality of outbound queues; wherein the inbound controller is adapted for storing the inbound packet in the selected one of the plurality of inbound queues (Kurita: Fig. 1-2, 6, 7, 13), col 1/lines 26-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53);

Regarding claim 38, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus further including: an outbound controller coupled to the inbound controller; wherein the inbound controller selects one of the plurality of inbound queues to be transferred to the outbound controller; wherein the outbound controller is adapted for storing the selected one of the plurality of inbound queues in one of the plurality of outbound queues associated with the packet sorting criteria and transmitting packets stored in the one of the plurality of outbound

queues (Calvignac abstract, Figs. 1, 8, 17, col 1/lines 29-37, col 1/lines 60-col 2/line 6, col 2/line 10-35, col 3/lines 4-col 4/line 41, col 17/lines 49-52, col 12/lines 3-col 13/line 28, Kurita: Fig. 1-2, 6, 7, 13), col 1/lines 26-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53); Regarding claim 39, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein the inbound controller further includes: a memory obtaining module coupled to the classifier, the memory obtaining module being adapted for obtaining memory for an inbound packet to permit the inbound packet to be stored in the selected one of the plurality of inbound queues in which the inbound packet is classified (Kurita: col 8/lines 62-67, col 1/lines 236-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53) .

Regarding claim 38, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein the outbound controller further includes: a memory releasing module adapted for releasing selected packet buffers associated with packets stored in the one of the plurality of outbound queues (Calvignac: Fig. 23, functions performed by logic 506 and 508 for transmitting data packet bursts to the destination).

Regarding claim 39, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein transmitting packets includes: selectively discarding packets stored in the outbound queue (Calvignac: col 7/lines 4-6, releasing means, col 14/lines 33-col 15/line 4).

Regarding claim 40, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein transmitting packets stored in the outbound queue further includes: obtaining a next one of the plurality of inbound queues stored in the outbound queue; transmitting selected packets stored in the next one of the plurality of inbound queues; and releasing memory associated with the next one of the plurality of inbound queues (Calvignac: col 7/lines 4-6, releasing means, col 14/lines 33-col 15/line 4, Fig. 10A-B, (121)).

Regarding claim 41, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein the memory further includes a free pool of available packet buffers

and the memory releasing module is adapted for releasing the selected packet buffers into the free pool (Kurita: col 8/lines 62-6, col 1/lines 236-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53).

Regarding claim 42, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus wherein the outbound controller further includes: a memory releasing module adapted for providing a new inbound queue to the inbound controller to replace the selected one of the plurality of inbound queues Calvignac: col 14/lines 5-19).

4. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Calvignac et. al. (Calvignac) U.S. Patent No. 5,333,269 in view of Kurita et. al. (Kurita) U.S. Patent No. 5,920,568 in further view of Finkelstein et. al. (Finkelstein) U.S. Patent No. 5,319,712.

Regarding claim 43, the combined teachings of Calvignac and Kurita as discussed above, the method/apparatus comprising: an inbound controller adapted for receiving an inbound packet; a classifier coupled to the inbound controller and adapted for classifying and storing the inbound packet in an inbound queue; an outbound controller adapted for receiving the inbound queue (Calvignac: abstract, Figs. 1, 8, 17, Fig. 19A-B, 20-21, col 1/lines 29-37, col 1/lines 60-col 2/line 6, col 2/line 10-35, col 3/lines 4-col 4/line 41, col 17/lines 49-52, col 12/lines 3-col 13/line 28, col 9/lines 7-19, col 12/lines 3-col 13/line 28: Kurita: Fig. 1, 2, 6, 7,. 13 col 1/lines 26-39, col 5/lines 44-56: col 1/lines 35-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53); however the combined teachings of Calvignac nor Kurita explicitly teach encryption means wherein an encryption box coupled to the outbound controller, the encryption box being adapted for encrypting the inbound queue to provide an encrypted inbound queue to the outbound controller for transmission.

Finkelstein teaches encryption means wherein an encryption box coupled to the outbound controlling means, the encryption box being adapted for encrypting the inbound buffer to provide an encrypted inbound buffer to the outbound controlling means for transmission (Finkelstein: col 6/line 52-col 7/line 35).

It would have been obvious to one ordinary skilled in the art at the time the invention was

made to modify existing system with encryption means wherein an encryption box coupled to the outbound controller, the encryption box being adapted for encrypting the inbound queue to provide an encrypted inbound queue to the outbound controller for transmission, as taught by Finkelstein, motivation would be to implement a robust encryption scheme that may be implemented on interconnecting/switching devices operating either on the 2 or 3 protocol layer of the OSI model for user either the communication unit or base site communication unit of a cellular communication system, where the direction of transmission between the transmitting portion and the receiving portion may be either uplink (i.e., subscriber unit to base site unit) or downlink (i.e., base site unit to user device).

Regarding claim 44, the combined teachings as discussed above, wherein the outbound controller includes an outbound classifier adapted for classifying the encrypted inbound queue in an outbound queue, the outbound controller adapted for transmitting data stored in the outbound queue (Kurita inbound/outbound controller for a router (Fig. 1 (11, 10), Fig. 6, (10), Fig. 7, (31, 38), Fig. 13 (50)), the router having an inbound port (Fig. 7 (31)) and an outbound port (Fig. 7 (38)), the inbound controller being adapted for receiving an inbound packet at the inbound port, the outbound controller being adapted for forwarding, means/apparatus for classifying the inbound packet in a selected one of the plurality of inbound queues according to packet sorting criteria (Kurita: Fig. 1, (11), Fig. 7, (33), col 1/lines 26-39, col 5/lines 44-56); means/apparatus for providing a plurality of inbound queues for the inbound port (Kurita: col 1/lines 35-62, col 5/lines 44-56, col 8/lines 62-67, col 9/line 1-col 10/line 53, Finkelstein: col 6/line 52-col 7/line 35).

Response to Arguments

5. Regarding claims 1-42, it is argued (A), prior art of record (Calvignac) does not teach; (i) the use of a router having at least one inbound port and at least one outbound port, (ii) implementing an inbound or outbound controller for a router (iii) outbound queue that is capable of storing or otherwise identifying a plurality of inbound queues (iv) transferring one of the plurality of inbound queues, teaching away from transferring or enqueueing an entire queue of packets (v) a plurality of inbound queues for an inbound port or classifying a packet in one of the plurality of inbound queues;

6. Regarding claims 1-42, it is argued (B), prior art of record (Kurita) does not teach (i) a method for providing an inbound or outbound controller for a router, (ii) transferring of an entire queue to an outbound queue, because said reference transmits a single packet;

7. Regarding claim 43, it is argued (C), prior art of record (Finkelstein) does not teach (i) classifying an inbound packet in an inbound queue, (ii)encrypting an inbound queue, because said reference appears to encrypt a single packet, therefore teaching away from claim invention;

8. In response to arguments (A); it is respectfully noted that according to Applicant's specification; the terms in the claim have been broadly interpreted in light of the specifications, for example; an outbound/inbound "controller" was defined as an outbound/inbound interface associated with ports (i.e. input/out access points); see specification, pages 1, lines 18-25, the function of classifying, broadly speaking is a software implementation in which respective functions comprises, the selection (using e.g. destination, or priority) of inbound queues and associated inbound port, see page 9, lines 10-25 and page 13, lines 13-25.

Prior art of record (Calvignac) teaches; (i) the use of a interconnecting routing device (abstract, having routing functionalities, Fig. 1, comprising plurality of interfaces (22), col 3/lines 63-col 4/line 10) having at least one inbound port and at least one outbound port, (access (inbound/outbound) points, associated with corresponding inbound/outbound queues, col 9/lines 7-42 also col 1/line 60-col 2/line 35 handling messages via access points using queues, transferring data via transmit/receive means, col 23/lnes 16-55, routing means col 12/lines 32-37, therefore teachings means for (ii) implementing an inbound or outbound controller for a router; and (iii) outbound queue that is capable of storing a plurality of inbound messages; and further Calvignac teaches means wherein a plurality of inbound queues having a corresponding inbound port are selecting based on the inbound packet parameters (e.g. address); (Calvignac; means wherein equal capacity buffers for storing data and one control buffer divided into m control blocks, said blocks for storing of buffer and message chaining information with queue control blocks per user, messages received by interface 22 from the source users and then are enqueued in link inbound queues (LIQ) which are dynamically built by taking buffers from the buffered space, chaining information in the corresponding buffer control blocks and writing the queue head and queue tail addresses in the user queue control block via a centralized control means using the packet address to identify corresponding inbound queue and outbound queue from which it is transferred to the destination user;(col 2/lines 20-52); disclosing means for

processing and storing (enqueuing) a first-to-last messages, col 5/lines 41-59, enqueing the entire burst of data, col 18/lines 17-31, means for storing processing a data burst transferring all data burst to inbound queue; Additionally, applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "(iii) outbound queue that is capable identifying a plurality of inbound queues (iv) transferring one of the plurality of inbound queues, by transferring or enqueueing an entire queue of packets") are not recited in the rejected independent claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

9. In response to argument (B), prior art of record Kurita teaches, teach (i) a method for providing an inbound or outbound controller for a router, col 4/lines 9-32, Fig. 7, as prior art, col 1/lines 14-62, system/method comprising a router, inbound/outbound "controllers", and associated inbound/outbound queue, having means for classifying an inbound packet in a inbound queue;

10. In response to (C), prior art of record, Finkelstein teaches (i) classifying an inbound packet in an inbound queue, and encrypting all packets in an inbound queue, (Finkelstein; teaches an interconnecting device comprising conventional OSI software level configured for providing cryptographic protection of a data stream, disclosing means for segmenting 114 a data stream 108 received from the network layer 110 into a plurality of packets... wherein each particular packet of the plurality of packets is encrypted 120 as a function of a predetermined session key, the packet sequence number associated with the particular packet, ...and the modified transmit overflow sequence number associated with the particular packet, wherein the encrypted plurality of packets are buffered 118 (i.e. queued) for subsequent transmission... (col 5/lines 7-32);

11. Arguments filed 04/23/01 have been fully considered, but not found to be persuasive.

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Prieto, B.** whose telephone number **is (703) 305-0750**. The Examiner can normally be reached on Monday-Friday from 6:30 to 4:00 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, **Mark H. Rinehart** can be reached on **(703) 305-4815**. The fax phone number for the organization where this application or proceeding is assigned is **(703) 308-6606**. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is **(703) 305-3800/4700.**

Any response to this final action should be mailed to:

Box AF
Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:
(703) 308-9051, (for formal communications; please mark "EXPEDITED PROCEDURE")

Or:
(703) 305-7201 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

B. Prieto
Patent Examiner

June 22, 2001

LE HIEN LUU
PRIMARY EXAMINER